

November 2 - November 8, 2001

The Terra spacecraft is in nominal mode. All instruments are in nominal science mode.

A 30-second Drag Make-up Maneuver was successfully executed on Tuesday, October 30, 2001. The next Drag Make-up Maneuver is scheduled for Thursday, November 15, 2001.

ASTER Direct Downlink (DDL) testing over the Polar Ground Stations began successfully on November 1, 2001 and completed on November 2. The purpose of these tests was to acquire data on signal characteristics and data quality via DDL to help the ASTER team develop and deploy their DDL dish. DDL mode places the ASTER data on the Q-channel where the MODIS Direct Broadcast data are nominally transmitted, and this testing also serves to demonstrate the Q- to I-channel transition and notification mechanisms for the MODIS Direct Broadcast community.

The DDL testing over the Polar Ground Station was successful. The EOS Data and Operations System (EDOS) experienced recording problems during the first pass, so they will have to wait for the tape to arrive to process the data. The data from subsequent passes were recorded at EDOS.

The Alaska Ground Station provided spectrum plots of the X-band signal, obtained during the passes. AGS indicated that the X-band signal looked like a "text book case".

Regularly scheduled proficiency S-band Housekeeping and X-band Science data dumps to the Polar Ground Stations continue to be very successful. The Polar Ground Station Science Data Downlink Demonstration began on Tuesday, November 6, 2001. Seven consecutive demo contacts were conducted via the Alaska Ground Station to begin demonstration of the capability of the polar ground stations to fully support EOS science data downlink. A T1 Line failure (AT&T outage) prevented science data from being dumped on the first two contacts. The last five contacts were successful. Planning for future demos is ongoing.

The first certification contacts with the commercial ground station at Poker Flats, Alaska, via DataLynx have been conducted. Commanding successfully took place with the spacecraft on November 2 and November 6, however telemetry during the two passes was intermittent. AGS did shadow the pass and had solid lock on the subcarrier. On the November 6 pass, telemetry on the subcarrier was not received in the EOS Operations Center, so the planned X-band Solid State Recorder dump was not executed.

The recent high levels of solar activity have been affecting the Magnetic Torquer Rod (MTR), but momentum unloading remains nominal (i.e., no saturation of the MTR).

Eleven MDA2BITE trips (High Gain Antenna Motor Drive Assembly opto-coupler Single Event Upsets) occurred on November 5-6, 2001, as a result of increased radiation effects from a large coronal mass ejection on Sunday, November 4. This resulted in five instances of non-recoverable data loss.

Plans

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- <li>Next MODIS Calibration Roll Maneuver on Thursday, November 15
- <li>Continued certification testing with commercial polar ground station sites
- <li>Continued planning for additional Polar Ground Station Science Data Downlink Demonstrations
- <li>Planning for Leonids staffing on and around November 18